

AMENDMENTS TO THE CLAIMS

1. (previously presented) A method for packet flooding in a network including a plurality of nodes, comprising:
 - generating a flood packet;
 - selecting one or more of the nodes as a like number of one or more relays to form a first relay configuration;
 - identifying a difference between the first relay configuration and a second relay configuration;
 - comparing the difference between the first relay configuration and the second relay configuration to a threshold;
 - updating the second relay configuration with the first relay configuration when the difference is above the threshold;
 - attaching a header to the flood packet, the header instructing the one or more relays to which of the nodes to send the flood packet; and
 - sending the flood packet with the attached header to the one or more relays.
2. (original) The method of claim 1, wherein the selecting one or more of the nodes as a like number of one or more relays includes:
 - building a minimum spanning tree that covers an n-hop neighborhood of one of the nodes that generated the flood packet, and
 - using the minimum spanning tree to identify the one or more relays.

3. (cancelled)
4. (previously presented) The method of claim 1, wherein the attaching a header to the flood packet includes forming the header based at least in part on the first relay configuration.
5. (previously presented) The method of claim 1, further comprising: setting a transmission power for the flood packet with the attached header based on a location of the one or more relays.
6. (original) The method of claim 5, wherein the setting a transmission power includes determining the transmission power based at least in part on a distance to a farthest one of the one or more relays.
7. (previously presented) The method of claim 1, further comprising:
receiving the flood packet with the attached header at one of the one or more relays as a receiving relay;
extracting the attached header; and
retransmitting the flood packet from the receiving relay to one or more other ones of the nodes.

8. (previously presented) The method of claim 7, wherein the retransmitting the flood packet with the attached header includes duplicating the flood packet.

9. (previously presented) The method of claim 7, wherein the retransmitting the flood packet with the attached header includes: identifying one or more other nodes as one or more additional relays, and sending the flood packet with the attached header to the one or more additional relays.

10. (previously presented) The method of claim 1, wherein the sending the flood packet with the attached header includes: transmitting the flood packet as a unicast transmission.

11. (previously presented) The method of claim 1, wherein the sending the flood packet with the attached header includes: transmitting the flood packet as a broadcast transmission.

12. (previously presented) A system for flooding packets in a network that includes a plurality of nodes, comprising:

means for receiving a flood packet;

means for identifying one or more of the nodes as a like number of one or more relays to form a first relay configuration;

means for identifying a difference between the first relay configuration and a second relay configuration;

means for comparing the difference between the first relay configuration and the second relay configuration to a threshold;

means for updating the second relay configuration with the first relay configuration when the difference is above the threshold;

means for sending the flood packet to the one or more relays; and

means for retransmitting the flood packets from the one or more relays such that each of the nodes in the network receives one copy of the flood packet.

13. (previously presented) A system for flooding packets in a network that includes a plurality of nodes, comprising:

a flooding module configured to:

receive a flood packet,

select one or more of the nodes as a like number of one or more relays to form a first relay configuration,

identify a difference between the first relay configuration and a second relay configuration,

compare the difference between the first relay configuration and the second relay configuration to a threshold,

update the second relay configuration with the first relay configuration when the difference is above the threshold,

attach a header to the flood packet, the header instructing the one or more relays to which of the nodes to send the flood packet; and

a forwarding module configured to:

send the flood packet with the attached header to the one or more relays.

14. (original) The system of claim 13, further comprising at least one of a directional antenna and an omni-directional antenna.

15. (original) The system of claim 13, wherein the flooding module is configured to:
build a minimum spanning tree that covers an n-hop neighborhood of one of the nodes that generated the flood packet, and
identify the one or more relays based at least in part on the minimum spanning tree.

16. (cancelled)

17. (previously presented) The system of claim 13, wherein the header is formed based at least in part on the first relay configuration.

18. (previously presented) The system of claim 13, wherein the flooding module is further configured to set a transmission power for the flood packet with the attached header based on a location of the one or more relays.

19. (original) The system of claim 18, wherein when setting a transmission power, the flooding module is configured to determine the transmission power based at least in part on a distance to a farthest one of the one or more relays.

20. (previously presented) The system of claim 13, wherein the forwarding module is configured to transmit the flood packet with the attached header as a unicast transmission.

21. (previously presented) The system of claim 13, wherein the forwarding module is configured to transmit the flood packet with the attached header as a broadcast transmission.

22-25. (canceled)